

Claim Amendments:

1. (canceled)
2. (canceled)
3. (canceled)
4. (canceled)
5. (new) A method for transforming a digital image (A) of a mail item comprising an address information and having several gray levels into a binary image (F) having pixels each coded by one bit, in order to automatically read the information address from said binary image (F), said method comprising the steps of:
 - a) applying to each current pixel (P) of said digital image (A) several different parallel binarization processes (T1, T2, T3); and
 - b) combining, for each current pixel of the digital image, the binary values delivered by the different processes for obtaining a corresponding current pixel of the binary image (F),wherein one of said parallel binarization processes is a neural classifier having a set of weights for neurons learned from a backpropagation method onto synthesized images of mail items, said neural classifier translating a vector of data characterizing the environment of said current pixel in the digital image (A) into a binary value.
6. (new) A method as claimed in claim 5, wherein said vector of data characterizing said environment of said current pixel in the digital image (A) is based upon the gray level of the current pixel in the digital image, average gray levels around the current pixel for different neighborhoods thereof in the digital image, the maximum deviation of the gray levels of the

pixels in different neighborhoods of the current pixel in the digital image, the standard deviation of the gray levels of the pixels in different neighborhoods of the current pixel in the digital image, the local contrast level in a neighborhood of the current pixel in the digital image, and the gradient over four directions in a neighborhood of the current pixel in the digital image.

7. (new) A method as claimed in claim 5, wherein said neural classifier has undergone several learning phases by backpropagation in order to construct so many different sets of weights for the neurons of the neural classifier, these various sets of weights being held in memory in the automatic mail processing machine and in which these sets of weights can be selectively retrieved so as to binarize digitized images for a specified batch of a mail items.